

## REMARKS

Applicants' counsel thanks Examiner Berman for her very careful and thorough examination of the present application.

Applicants affirm the election of the invention of Group I, and within Group I the species of claim 18, claims 18-21, as indicated in the Office action. Of the remaining withdrawn claims, claims 1, 7-9, 14-15, 22-23 and 26-28 have been canceled, while claims 2-6, 10-13, 16-17 and 24-25 have been amended to depend from claim 18. Accordingly, elected claim 18 is now generic to all of claims 2-6, 10-13, 16-17 and 24-25, and it is respectfully requested that claims 2-6, 10-13, 16-17 and 24-25 all be rejoined.

New claims 29-38 have been added to claim additional features supported by the application as-filed. No new matter has been entered in respect of any new claim.

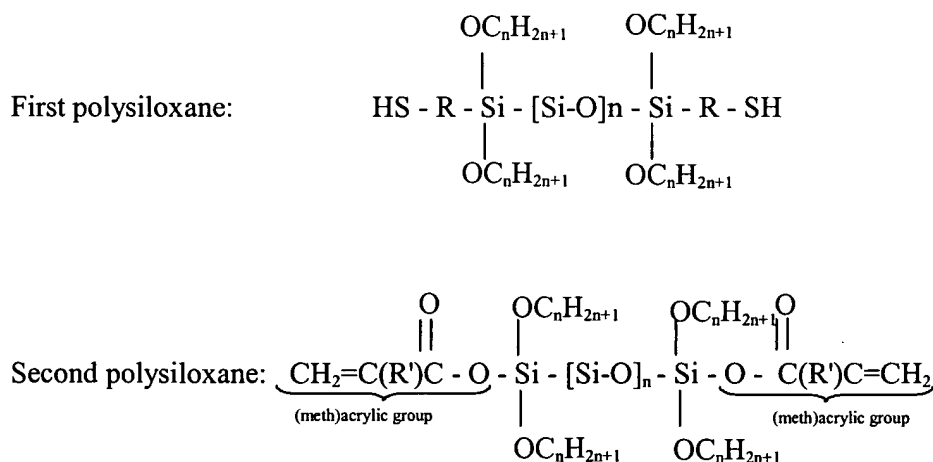
Due to the number and nature of amendments to the specification, to aid in understanding and organizing the application papers amendments thereto have been submitted by way of a substitute specification, with clean and marked-up versions being enclosed. In addition to amendments relating to consistency of use of the terms 'composition' and 'compound' as described in the next paragraph, a number of typographical and other minor amendments also have been made in the substitute specification, all indicated by underlining for new material and strikethrough or brackets for canceled material. No new matter has been entered by any amendment presented in the substitute specification. For example, the tri-alkoxysilane illustrated in Formula (5) was incorrectly referred to throughout the specification as a tri-oximosilane. This obvious error has been corrected where appropriate.

The Abstract also has been amended for consistency with the remainder of the application regarding use of the terms 'composition' and 'compound.'

The Examiner has rejected the claims under 35 USC § 112, second paragraph as being indefinite because it was stated to be unclear whether applicant intends to claim a compound or a composition. Specifically, the Examiner points out a "compound is universally understood to be a single structure and cannot contain two polysiloxanes unless bonded together to form one structure," to be distinguished from a 'composition,' which is a mixture of components not necessarily chemically bound. The Examiner correctly invoked the meaning of the term 'compound' within the field of chemistry, as opposed to its lay connotation which can include a simple mixture. Applicants appreciate the Examiner pointing out this oversight, and have amended both the claims and the specification to

particularly refer to a composition or a compound, respectively, consistent with the appropriate meanings of those terms. To ensure clarity, Applicants also have inserted into the specification (first paragraph in DETAILED DESCRIPTION section) a brief description as to the appropriate meanings of the two terms 'compound' and 'composition' as they are to be understood in the present application. The brief description of these two terms merely reiterates their art-recognized meanings in the context of the application as noted by the Examiner, and does not constitute new matter.

The Examiner has rejected claim 18 under 35 USC § 103(a) as being obvious over Pigeon in view of DeCato et al. (hereinafter "DeCato"). Specifically, the Examiner has cited col. 8, lns. 22-30 to suggest that reference teaches a composition comprising "an organopolysiloxane having (meth)acryl groups, vinyl groups and alkoxy groups and an organopolysiloxane having mercapto end groups and alkoxy groups." After carefully reviewing Pigeon, and particularly the polysiloxane oils (i) and silanes (ii) described in that reference at col. 3, ln. 56 to col. 5 ln. 18, as well as the methods of reacting them to produce functionalized polysiloxanes at col. 6 ln. 36 to col. 8, ln. 49, it is clear that mixing the compositions E<sub>1</sub> and E<sub>2</sub> from Pigeon, as described in the passage at col. 8, lns. 22-30 cited by the Examiner, would result in a mixture of two organopolysiloxanes having the following formulae, wherein R represents an alkyl group and R' represents a "(meth)" group:



Thus, the passage of Pigeon cited by the Examiner actually describes a composition of a first polysiloxane having (meth)acrylic and alkoxy functionality, and a second polysiloxane having mercapto and alkoxy functionality. It does not disclose providing any terminal vinyl functionality in the first polysiloxane apart from a (meth)acrylic group as illustrated above.

Claim 18 has been amended to explicitly recite the terminal vinyl functionality provided in the second polysiloxane component "is not provided in the form of a (meth)acrylic group." Basis for this limitation is found in the specification as-filed, e.g. Eq. 5, which shows a vinyl-functional tri-alkoxysilane wherein the vinyl group is not provided as part of a (meth)acrylic group. See also first full paragraph at page 14 as-filed, describing that the improved rate of cure for the claimed compositions is believed attributable to highly reactive mercapto groups, which are used *instead of* the acrylic groups used in conventional dual-cure silicones. Certainly it was contemplated in the application as-filed that mercapto groups would replace the acrylic groups conventionally used in dual-cure silicone compositions to support a UV-based cross-linking mechanism. (It is also noted the terminal alkoxy functionality for the first polysiloxane component in claim 18, believed not necessary to the patentability of claim 18, has been canceled from that claim and moved to dependent claim 38).

As amended, the structure of claim 18 clearly is not obvious over Pigeon in view of DeCato, at least because the combination as suggested by the Examiner would yield a second polysiloxane component having *(meth)acrylic* and oximo functionality, and not the vinyl functionality apart from a (meth)acrylic group now claimed. Hence, the resulting composition would not be that now recited in claim 18. Accordingly, it is respectfully submitted the rejection of claim 18 has been overcome.

Dependent claims 10 and 32 also are submitted as being independently allowable. Each of these recites that the nominal equivalent weight ratio (defined in the specification) between the first and second polysiloxane components is within a specified range, nominally 0.7:1 to 1.3:1 for claim 10 and nominally 1:1 for claim 32. Specifically, to obtain a species's equivalent weight, one divides its molecular weight by the number of functional groups on the molecule that facilitate UV-curing (e.g. terminal mercapto and vinyl groups). See page 11 as-filed. Neither of the references either discloses or remotely suggests defining an equivalent weight for the polysiloxane components in this manner, or combining individual polysiloxane components according to the above-specified ratios of equivalent weight. Accordingly, claims 10 and 32 are believed independently allowable over the cited references.


In summary, it is believed claims 10, 18, 22 and 32 are each independently allowable. All remaining claims are dependent claims, and thus are believed allowable as-such.

Should the Examiner have any questions or concerns regarding the instant submission, she is invited and requested to please contact the undersigned attorney at the phone number below.

If any fees are required by this communication, please charge the same to our Deposit Account No. 16-0820, Order No. 35213US1.

Respectfully submitted,

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